

## WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

[The Marine Division, WILLIS E. HURD, acting in charge]

## NORTH ATLANTIC OCEAN, DECEMBER 1935

By H. C. HUNTER

**Atmospheric pressure.**—Pressure averaged low over most of the North Atlantic Ocean, especially near the British Isles and over the western Atlantic between the fiftieth and thirtieth parallels of latitude, save near the American coast from Chesapeake Bay southward, where the average was but slightly less than normal.

In Icelandic waters pressure averaged considerably above normal, being notably high during the fortnight from the 9th to the 22d. The region near Madeira, also the Gulf of Mexico and Caribbean areas, averaged a little higher in pressure than normal.

The highest pressure found among vessel reports was 30.70 inches, during the morning of the 7th, about 50 miles east of Cape May, N. J., noted on the Dutch steamship *Amor*. Table 1 shows that a higher reading was recorded at Lerwick, Shetland Islands, on the 11th. The lowest pressure was 28.01, reported from the German steamship *New York*, late on the 23d, near 51° N., 27° W.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, December 1935

Station	Average pressure	Departure	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Julianehaab, Greenland.....	29.70		30.32	14	28.86	9
Reykjavik, Iceland.....	29.69	+0.22	30.31	19	28.73	1
Lerwick, Shetland Islands.....	29.53	-.19	30.81	11	28.33	2
Valencia, Ireland.....	29.62	-.32	30.55	10	28.53	26
Lisbon, Portugal.....	30.06	-.05	30.33	1	29.47	25
Madeira.....	30.12	+0.03	30.29	6	29.81	25
Horta, Azores.....	30.08	-.06	30.50	1	29.37	26
Belle Isle, Newfoundland.....	29.60	-.10	30.18	12	28.36	22
Halifax, Nova Scotia.....	29.79	-.16	30.42	7	29.10	27
Nantucket.....	29.92	-.13	30.61	7	29.34	20
Hatteras.....	30.06	-.07	30.65	6	29.55	13
Bermuda.....	29.98	-.14	30.32	8	29.66	21
Turks Island.....	30.03	.00	30.18	7	29.91	13, 14
Key West.....	30.09	+0.01	30.34	5	29.68	12
New Orleans.....	30.18	+0.05	30.52	2	29.67	12

NOTE.—All data based on a. m. observations only, with departures compiled from best available normals related to time of observation, except Hatteras, Key West, Nantucket, and New Orleans, which are 24-hour corrected means.

**Cyclones and gales.**—The month of December brought a large number of gale reports, as usual; but fewer of them than in other recent years indicated winds of force 10 (whole gale) or higher, and no major vessel casualties due to severe weather have been noted. The first 8 days and the last 12 were considerably more stormy than the intervening period.

During the first 4 days, decidedly low pressure was central from the Faroe and Shetland Islands to southwestern Norway, and strong gales were noted in the vicinity of the British Isles and for moderate distances to southward and westward.

From the 3d to the 8th, three distinct storms affected the western Atlantic; the first two of them turned sharply northward over or near Newfoundland to the vicinity of Cape Farewell, but the third continued farther to eastward before it turned northward on the 8th. The southward extension of this third low, in connection with high pressure to westward of it which moved southeastward

across the Middle Atlantic States over the ocean on the 7th and 8th, caused several gales during those days in the waters between Bermuda and Horta, which otherwise had no marked storm activity during the month.

After a few days, during which scarcely any gales were reported, a low over the northeastern part of the Gulf of Mexico developed much strength on the 12th. It advanced rapidly toward the east-northeast; and on the 16th was a considerable distance southeast of Newfoundland. Numerous reports of gales of forces 8 to 10 were received in connection with this storm. Charts IX and X indicate the conditions on the 13th and 14th respectively.

On the morning of the 20th, a storm was centered not far eastward of Delaware Bay, its influence being felt markedly far to southward. This storm advanced to near Newfoundland on the 21st, and for several days following decidedly low pressure prevailed over the chief steamship lanes from the Grand Banks to near Ireland. The lowest North Atlantic pressure readings of the month were noted somewhat to eastward of mid-ocean during the night of the 23d–24th. Charts XI and XII present the situations of the 22d and 23d respectively.

The night of the 25–26th, an important storm crossed the coast of Virginia, traveling eastward. By the 27th this cyclone had attained great intensity near Nova Scotia, and many vessels had noted strong or whole gales in connection with the low and the marked high west of it. The German liner *New York* encountered force 12 when not far southeastward of Nova Scotia, early on the 27th.

With the eastward advance of an offshoot of this low, pressure was soon much below normal over practically all waters between Newfoundland and Ireland; and the Dutch steamship *Boschdyk* on the 29th, near longitude 30°, noted the second instance of force 12 wind during the month.

During the 29th a well-marked disturbance entered the ocean from the Carolina coast and, heading east-northeast, arrived over the southern Grand Banks by the morning of the 31st. This storm caused much rough weather en route, as shown by a number of gale reports.

**Fog.**—There was rather more fog than normal for December over waters between Newfoundland and Ireland, the period from 6th to 15th showing greatest frequency. The square from 45° to 50° N., 45° to 50° W., had fog on 7 days, or more than any other square east of the 70th meridian.

From the southwestern edge of the Grand Banks westward to Nova Scotia and New England there was an almost complete absence of fog, a situation very unusual in any month, even during late fall or early winter when fog is expected to be least frequent here.

From the vicinity of Long Island southward to the 30th parallel of latitude, fog was met more frequently than usual during December, being especially common from the 20th to the end of the month. From the square 35° to 40° N., 70° to 75° W., fog was reported on 9 days altogether, a greater number than in any other square of the North Atlantic area.

The northwestern Gulf of Mexico had fog on the 9th and the 31st.